

WHAT IS CLAIMED IS:

1. A method, comprising the steps of:
executing in a computer system a first procedure which effects execution of a series of project definitions, wherein each said project definition obtains data from a data source, processes the data in a specified manner, and then places the data in a data destination; and
executing in said computer system a second procedure which monitors said execution of said first procedure for a condition, and which takes remedial action in response to detection of said condition.
2. A method according to Claim 1, including the steps of providing in said computer system respective first and second processors, and causing said steps of executing of said first and second procedures to be respectively carried out on said first processor and said second processor.
3. A method according to Claim 2, including the steps of:
executing in said computer system on a third processor a third procedure which obtains data from a data source, which processes the data according to a pre-defined project definition, and which then places the data in a data destination; and
executing in said computer system on said second processor a fourth procedure which monitors said execution of said third procedure for a further condition and which takes remedial action in response to detection of said further condition.

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4. A method according to Claim 1, including the step of causing said second procedure to take said remedial action after said first procedure completes execution of each said project definition currently being executed by
5 said first procedure and before said first procedure commences execution of another said project definition in said series.

10 5. A method according to Claim 1, wherein said step of monitoring for said condition includes the step of determining whether an efficiency of memory utilization by said first procedure has dropped below a threshold level.

15 6. A method according to Claim 5, wherein said step of taking said remedial action is effected in response to a determination that said efficiency has dropped below said threshold, and includes the steps of:

20 interrupting activity of said first procedure, thereafter effecting reorganization of memory utilization associated with said first procedure; and

thereafter causing said first procedure to resume said activity from the point at which it was interrupted.

25 7. A method according to Claim 6, including the steps of:

queuing input information destined for said first procedure while said first procedure is interrupted; and
thereafter submitting said queued input information to said first procedure.

30 8. A method according to Claim 1, wherein said step of monitoring for said condition includes the step of determining whether a performance characteristic of said first procedure has dropped below a threshold level.

9. A method according to Claim 1, wherein said step of monitoring for said condition includes the step of determining whether an activity response of said first procedure has dropped below a threshold level.

10. A method according to Claim 1, wherein said step of monitoring for said condition includes the step of detecting that said execution of said first procedure has transitioned to an abnormal state.

11. A method according to Claim 1, wherein said step of taking remedial action includes the steps of:
terminating operation of said first procedure; and
then re-starting execution of said first procedure.

12. A method according to Claim 11, wherein said step of re-starting execution of said first procedure is carried out so as to resume execution of one of said project definitions which was interrupted, beginning with data from the associated data source which immediately follows the last data therefrom which was processed to completion and stored in the associated data destination.

13. A method according to Claim 11, including the steps of:

queuing input information destined for said first procedure during a time interval between said terminating and re-starting steps; and

thereafter submitting said queued input information to said first procedure.

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14. A method according to Claim 1, including the step of providing within each said project definition:

5 a plurality of function portions which each correspond to one of a plurality of predetermined function definitions that are different, and which each define at least one input port and at least one output port that are functionally related according to the corresponding function definition;

10 a further portion which includes a source portion identifying the associated data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying the associated data destination and defining an input port through which data can be supplied to the data destination; and

15 binding information which includes binding portions that each associate a respective said input port with one of said output ports.

20 15. A method according to Claim 14, including the step of causing said data source associated with said one project definition to provide to said one project definition data which includes image data.

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16. A computer-readable medium encoded with a computer program which is operable when executed to facilitate:

5 execution in a computer system of a first procedure which effects execution of a series of project definitions, wherein each said project definition obtains data from a data source, processes the data in a specified manner, and then places the data in a data destination; and

10 execution in said computer system of a second procedure which monitors said execution of said first procedure for a condition, and which takes remedial action in response to detection of said condition.

15 17. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate execution of said first and second procedures on respective first and second processors in said computer system.

20 18. A computer-readable medium according to Claim 17, wherein said program is operable when executed to facilitate:

25 execution in said computer system on a third processor of a third procedure which obtains data from a data source, which processes the data in a manner specified by a pre-defined project definition, and which then places the data in a data destination; and

30 execution in said computer system on said second processor of a fourth procedure which monitors said execution of said third procedure for a further condition and which takes remedial action in response to detection of said further condition.

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19. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate implementation of said remedial action by said second procedure after said first procedure completes execution of each said project definition currently being executed by said first procedure and before said first procedure commences execution of another said project definition in said series.

20. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate said monitoring for said condition in a manner which includes determining whether an efficiency of memory utilization by said first procedure has dropped below a threshold level.

21. A computer-readable medium according to Claim 20, wherein said program is operable when executed to facilitate implementation of said remedial action in response to a determination that said efficiency has dropped below said threshold, in a manner so that said remedial action includes interruption of activity of said first procedure, subsequent reorganization of memory utilization associated with said first procedure, and subsequent resumption by said first procedure of said activity from the point at which it was interrupted.

22. A computer-readable medium according to Claim 21, wherein said program is operable when executed to facilitate queuing of input information destined for said first procedure while said first procedure is interrupted, and subsequent submission of said queued input information to said first procedure.

23. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate said monitoring for said condition in a manner which includes determining whether a performance characteristic of said first procedure has dropped below a threshold level.

24. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate said monitoring for said condition in a manner which includes determining whether an activity response of said first procedure has dropped below a threshold level.

25. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate said monitoring for said condition in a manner which includes detecting that said execution of said first procedure has transitioned to an abnormal state.

26. A computer-readable medium according to Claim 16, wherein said program is operable when executed to facilitate implementation of said remedial action in a manner which includes terminating operation of said first procedure, and then re-starting execution of said first procedure.

27. A computer-readable medium according to Claim 26, wherein said program is operable when executed to facilitate said re-starting of execution of said first procedure in a manner so as to resume execution of one of said project definitions which was interrupted, beginning with data from the associated data source which immediately follows the last data therefrom that was processed to completion and stored in the associated data destination.

28. A computer-readable medium according to Claim 26, wherein said program is operable when executed to facilitate queuing of input information destined for said first procedure during a time interval between said
5 terminating and said re-starting of said first procedure, followed by submission of said queued input information to said first procedure.

29. A computer-readable medium according to Claim 16,
10 wherein said program is operable when executed to facilitate said execution of said project definitions in a manner which includes execution of one said project definition which includes:

a plurality of function portions which each correspond
15 to one of a plurality of predetermined function definitions that are different, and which each define at least one input port and at least one output port that are functionally related according to the corresponding function definition;

a further portion which includes a source portion
20 identifying the associated data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying the associated data destination and defining an
25 input port through which data can be supplied to the data destination; and

binding information which includes binding portions
that each associate a respective said input port with one
of said output ports.

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30. A computer-readable medium according to Claim 29, wherein said program is operable when executed to accept data which includes image data from said data source associated with said one project definition.